

WHAT IS CLAIMED IS:

1. A reusable analyte sensor site for use with a replaceable analyte sensor for determining a level of an analyte, the site comprising:

5 a site housing material formed to have an interior cavity with an opening and a conduit that is connected to the opening of the interior cavity to provide access to the interior cavity, wherein the site housing material is selected to promote tissue ingrowth and vascularization and be free of tissue ingress, wherein the site housing material permits the analyte to pass through the site housing material to the interior cavity to permit measurement by the replaceable analyte sensor, and wherein the conduit has a predetermined length to inhibit trauma and encapsulation of tissue occurring at the conduit, associated with placing the replaceable analyte sensor in the interior cavity of the site housing, from interfering with the tissue ingrowth and vascularization surrounding the interior cavity of the site housing material.

2. A site according to claim 1, wherein the conduit has a length of at least 5 millimeters.

3. A site according to claim 1, wherein the site housing material has a porosity in a range from 2 to 25 microns.

4. A site according to claim 1, wherein the site housing is for implantation into sub-dermal tissue.

5. A site according to claim 1, wherein the site housing is for implantation into inter-peritoneal tissue.

6. A site according to claim 1, wherein the site housing material is selected from a group of materials consisting essentially of Teflon and Dacron.

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7. A site according to claim 1, wherein the site housing will last for a period of time such that it can be used with two or more consecutive replaceable analyte sensors.
8. A site according to claim 1, wherein the site housing material passes glucose, and
5 wherein the replaceable analyte sensor is a glucose sensor.
9. A system for measuring analyte in a body of a user, the system comprising:
a replaceable analyte sensor for determining a level of an analyte; and
a reusable analyte sensor site made from a site housing material formed to have an
interior cavity with an opening and a conduit that is connected to the opening of the interior
cavity to provide access to the interior cavity, wherein the site housing material is selected to
promote tissue ingrowth and vascularization and be free of tissue ingress, wherein the site
housing material permits the analyte to pass through the site housing material to the interior
cavity to permit measurement by the replaceable analyte sensor, and wherein the conduit has a
predetermined length to inhibit trauma and encapsulation of tissue occurring at the conduit, and
associated with placing the replaceable analyte sensor in the interior cavity of the site housing,
from interfering with the tissue ingrowth and vascularization surrounding the interior cavity of
the site housing material.
- 20 10. A system according to claim 9, wherein the conduit has a length of at least 5 millimeters.
11. A system according to claim 9, wherein the site housing material has a porosity in a range
from 2 to 25 microns.
- 25 12. A system according to claim 9, wherein the reusable analyte sensor site is for
implantation into sub- dermal tissue.

13. A system according to claim 9, wherein the reusable analyte sensor site is for implantation into inter-peritoneal tissue.

14. A system according to claim 9, wherein the reusable analyte sensor site housing material is selected from a group of materials consisting essentially of Teflon and Dacron.

15. A system according to claim 9, wherein the reusable analyte sensor site will last for a period of time such that it can be used with two or more consecutive replaceable analyte sensors.

16. A system according to claim 9, wherein the site housing material passes glucose, and wherein the replaceable analyte sensor is a glucose sensor.

17. A reusable infusion site for use with a replaceable infusion catheter for infusion a fluid into the body of a user, the site comprising:

a site housing material formed to have an interior cavity with an opening and a conduit that is connected to the opening of the interior cavity to provide access to the interior cavity, wherein the site housing material is selected to promote tissue ingrowth and vasuclarization and be free of tissue ingress, wherein the site housing material permits the fluid to pass out through the site housing material from the interior cavity to deliver the fluid to the body of the user, and wherein the conduit has a predetermined length to prevent trauma and encapsulation of tissue occurring at the conduit, and associated with placing the replaceable infusion catheter in the interior cavity of the site housing, from interfering with the tissue ingrowth and vascularization surrounding the interior cavity of the site housing material.

18. A site according to claim 17, wherein the conduit has a length of at least 5 millimeters.

19. A site according to claim 17, wherein the site housing material has a porosity in a range from 2 to 25 microns.

5 20. A site according to claim 17, wherein the site housing is for implantation into sub-dermal tissue.

21. A site according to claim 17, wherein the site housing is for implantation into inter-peritoneal tissue.

10 22. A site according to claim 17, wherein the site housing material is selected from a group of materials consisting essentially of Teflon and Dacron.

15 23. A site according to claim 17, wherein the site housing will last for a period of time such that it can be used with two or more consecutive replaceable infusion catheters.

20 24. A site according to claim 17, wherein the site housing material passes insulin, and wherein the replaceable infusion catheter is an insulin compatible delivery catheter.